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Decision Report

Feilding Meat Processing Plant

AFFCO New Zealand Limited's

Resource Consent Applications to

Manawatu-Wanganui Regional Council

3 February 2017

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1 Introduction

[1] AFFCO New Zealand Ltd (AFFCO) have sought a suite of consents associated with their meat processing plant in Feilding. The activities for which consent is sought are:

- The discharge of meatworks effluent, effluent sludge and paunch material by irrigation and direct application to land owned and occupied by the applicant, Byreburn Farm and Dalcam;
- The discharge of odours and aerosols to the air arising from the discharge of meatworks effluent, effluent sludge and paunch material to land;
- The discharge of meatworks effluent to groundwater by seepage from wastewater treatment and storage ponds;
- The discharge of meatworks effluent to the Oroua River; and
- The construction of a discharge diffuser and bed level control structure in the bank of the Oroua River and in the bed of the Otoku Stream which is a tributary to that river.

2 Appointments

[2] On 2 September 2016 the Manawatu-Wanganui Regional Council (MWRC or council), acting under section 34A of the Resource Management Act 1991 (RMA), appointed independent hearing commissioners Rob van Voorthuysen,[1] Anthony Olsen[2] and Dr Jim Cooke[3] to hear and decide the applications.

3 Description of the Proposal

[3] The applications were first lodged in February 2011, placed on hold and new applications were lodged in March 2015. The application was described in the applicant's AEE[4] and the MWRC Section 42A Report.[5]

[4] By way of brief overview, the applicant operates a meat processing plant located on the outskirts of Feilding. The effluent generated from the process is treated in a series of anaerobic and aerobic wastewater ponds located adjacent to the processing plant. The treated wastewater is currently disposed of by way of a direct discharge to the Oroua River, direct seepage to groundwater through the base of the wastewater treatment ponds, and by land irrigation.

[5] Current volumes of wastewater produced by the plant are estimated at around 256,100 m^3/year. The daily volume ranges from 250 m^3/day to 1050 m^3/day, with an average volume of around 700 m^3/day. The applicant has applied to increase the volumes of effluent discharged by 20% to cater for possible increased throughput at the meat processing plant over the lifetime of any new consents.

[1] Commissioner van Voorthuysen is an experienced independent commissioner, having sat on over 245 hearings throughout New Zealand since 1998. He has qualifications in natural resources engineering and public policy and was a full member of the New Zealand Planning Institute (NZPI) from 1998 to 2016.
[2] Commissioner Olsen is an independent commissioner with an extensive knowledge of Maori cultural landscape and has qualifications in geography and sediment science.
[3] Commissioner Cooke is an experienced independent commissioner with a broad knowledge of environmental science and specialist knowledge of water quality issues.
[4] Meat Processing Plant Discharge Consents Application and Assessment of Environmental Effects, Prepared for AFFCO New Zealand Limited, Prepared by Lowe Environmental Impact, Version 5, Final. March 2015 [the AEE], section 5, pages 21 to 34.
[5] Section 42A Report of Tabitha Manderson, Senior Resource Management Planner on behalf of Manawatu Wanganui Regional Council, 7 October 2016 [officer's report], sections D, E and F.

[6] The proposed discharge to the Oroua River is to operate as follows:

Flow in the Oroua River at Kawa Wool Gauging Station	Proposed discharge 1 December to 31 March (summer)	Proposed discharge 1 April to 30 November (winter)
Below median flow (0 L/s - 7,590 L/s)	No discharge	No discharge
Median flow to 20th flow exceedence percentile (7,590 L/s - 16,193 L/s)	No discharge	Discharge based on rate of DRP load to river up to a maximum of 3,000 m^3/day
Above 20th flow exceedence percentile (> 16,193 L/s)	No discharge	Up to 3,000 m^3/day
If flow is greater than 3 x median (> 22,770 L/s)[6]	Up to 2,000 m^3/day if land application is not possible and ponds are 100 % full	N/A

[7] We note that the 20th flow exceedence percentile (20th FEP or Q_{20}) is a high flow at which the river will be turbid (muddy) and swiftly flowing. We note that 80% of the river flows will be lower than the 20th FEP.

[8] The discharge regime tabulated above proposes an increased flow into the Oroua River under certain circumstances, although the Oroua River flow level below which no discharge will occur (the median flow of 7,590 L/s) is higher than the comparable figure in the existing expired consent (3,000 L/s).

[9] No change is proposed in terms of the rate and volume of seepage through the base of the treatment and storage ponds.

[10] The applicant has sought to increase the area of land over which treated effluent and waste solids can be discharged, from the current area of 75ha to 145ha. The discharge rates will be determined by the most limiting soil factor (hydraulic loading or nutrient loading) and the low rate irrigation technology to be used. The applicant states that the increased land area will have a theoretical wastewater capacity of up to 331,775 m^3/year, but indicates that in practice the annual volume discharged to land will be in the order of 179,300 m^3/day. The applications include the discharge of odours and aerosols to air from the wastewater irrigation land area.

[11] The applicant proposes to construct a rock-filled diffuse discharge structure in the bank of the Oroua River together with a new bed level control structure and associated fish pass in the Otoku Stream.

[6] The AEE listed this figure as 20,913 L/s but in response to our questions at the hearing the applicant agreed it should be 22,770 L/s.

4 Process Issues

4.1 Notification and submissions

[12] The applications were notified in June 2015 and notice was served on a number of potentially affected parties. Eighteen valid submissions were received. The submissions were summarised in the officer's report.[7] We adopt that summary but do not repeat it here for the sake of brevity. We refer to relevant issues raised by the submitters in chapter 5 of this decision report.

4.2 Consultation

[13] Under section 36A of the RMA there is no obligation on the applicant to undertake consultation. Nevertheless, the AEE summarised the consultation that had been undertaken prior to the applications being lodged with iwi, neighbours and nearby bore owners.[8] That consultation, together with the consultation undertaken since the lodgement of the applications, was also described in the evidence of Ann Nuku, the Feilding Plant Manager.[9] We note that as a result of the consultation undertaken with Ngāti Kauwhata, and in the light of submissions received, the applicant commissioned a Cultural Impact Assessment (CIA) in February 2016. We discuss the CIA further in section 5.1.9 of this decision report dealing with "Maori interests and values".

[14] We record that we found the applicant's consultative efforts to be both considered and genuine.

4.3 Pre-hearing meeting

[15] A pre-hearing meeting was held on Wednesday 23 September 2015. We were provided with a copy of the resultant pre-hearing report.[10] The report concluded that many submitters were opposed to any discharge to the Oroua River. Our own reading of the submissions has made that abundantly clear.

4.4 Hearing, appearances and site visit

[16] We held a hearing at Manfield Park in Feilding from Monday 14 November to Wednesday 16 November 2016. Appearances are listed in Appendix One to this decision report.[11] The applicant's primary evidence was pre-circulated in conformance with section 103B of the RMA. Supplementary evidence, provided by the applicants technical experts and the MWRC reporting officers, was tabled and read at the hearing. One submitter pre-circulated evidence and others presented written and verbal evidence at the hearing. The applicant's counsel, David Allen, tabled and read opening legal submissions.

[17] Copies of the legal submissions and briefs of evidence are held by the council. We do not summarise the matters covered in the evidence and submissions here, but we refer to or quote from that material as appropriate in the remainder of this decision report. We took our own notes on the verbal evidence and any answers given to questions that we posed to counsel, witnesses, submitters and the MWRC reporting officers.

[7] Officer's report, Section G and Attachment 2.
[8] AEE, section 13.
[9] Statement of Evidence of Ann Nuku (Plant Manager) on behalf of AFFCO New Zealand Limited, 26 October 2016, paragraphs 62 to 74.
[10] Pre-Hearing Report, AFFCO New Zealand Limited, APP-1994001032.01, prepared by Andrew Bashford and dated 30 September 2015.
[11] Several submitters who had requested to be heard did not come to the hearing and no explanation of their absence was provided by them. This included Jonathan and Dianne deWiele; Fish and Game New Zealand (Wellington Region), Forest and Bird (Manawatu Branch); James and Martin Wilson and Merv Avery, and Mark Webley

[18] At the conclusion of the hearing Mr Allen requested that the applicant be allowed to submit written submissions in reply by Friday 9 December 2016. We agreed to that request. We received the written closing submissions on that date, and on 16 December 2016 we closed the hearing, having concluded that we required no further information from any of the parties.

[19] We conducted a site visit on the afternoon of the first hearing day. We were ably escorted by Mr Grant Pedley, the AFFCO plant's services engineer. We viewed the general plant exterior layout, the various wastewater treatment and storage ponds, the existing discharge to the Oroua River and the existing and proposed areas where treated wastewater will be irrigated to land. We also viewed the existing wastewater irrigator.[12]

4.5 Section 113 of the RMA

[20] Section 113(3) of the RMA provides that:

> (3) A decision prepared under subsection (1) may,—
>
> (a) instead of repeating material, cross-refer to all or a part of—
>
> (i) the assessment of environmental effects provided by the applicant concerned:
>
> (ii) any report prepared under section 41C, 42A, or 92; or
>
> (b) adopt all or a part of the assessment or report, and cross-refer to the material accordingly.

[21] In the spirit of section 113(3) of the RMA, and to avoid unnecessary repetition, we intend to cross-refer to the AEE, the applicant's evidence and to the officer's report accordingly.

4.6 Section 124 of the RMA

[22] Four of the applications before us replace previous consents that expired on 14 May 2011. These are the discharge of treated wastewater to the Oroua River (previous consent 4219), the seepage from the treatment and storage ponds (previous consent 6191), the irrigation of treated wastewater to land (previous consent 4226) and the discharge of odours and aerosols to air (previous consent 4236).

[23] As noted above, the applications were first lodged in February 2011 and the existing consents were due to expire in May 2011. The applications were placed on hold and new applications were lodged in March 2015. We enquired of the applicant and the council as to whether AFFCO enjoyed protection under section 124(2)(d) for the RMA. The answer was relevant as to whether section 104(2A) (the value of the investment of the existing consent holder) applied. Neither the applicant nor the reporting officers could answer that question at the hearing.

[24] Under section 124(1) of the RMA, to have been allowed to carry on the four discharge activities 'as of right' until new consents were granted and any appeals resolved, replacement consents would need to have been lodged by AFFCO six months prior to expiry of the previous consents (namely by 14 November 2010). None of the applications were lodged by that date.

[12] A Roto Rainer, very common a rotating boom irrigator that has been in use in NZ for over 30 years.

[25] If applications for replacement consents had been lodged more than three months prior to the expiry of the former consents (namely by 14 February 2011), then AFFCO may have been allowed to carry on their discharge activities under section 124(2)(d) of the RMA if the MWRC had, at its discretion under section 124(2)(e), allowed AFFCO to do so.

[26] We subsequently received advice and copies of documentation from the MWRC on this matter.[13] The documentation showed that the replacement application for the air discharge consent was lodged on 29 November 2010. It remains unclear to us when the other three applications were lodged, although the AEE states that occurred in February 2011. More importantly, we were advised that there was no documentation in the MRWC archives showing that the MWRC had granted AFFCO the necessary dispensation under section 124(e) of the RMA. The only letter on file from MWRC was one dated 17 November 2010 declining to grant such dispensation.

[27] Based on the evidence we are unable to find that the discharge activities that are the subject of the applications before us enjoy protection under section 124 of the RMA. We leave any further implications of that finding in the hands of the MWRC.

4.7 Consent category

[28] It was common ground that the applications should be bundled and assessed as discretionary activities.[14]

4.8 Officer's recommendation

[29] Ms Manderson recommended that the applications be granted and as part of her officer's report she included a suite of recommended conditions. We discuss the conditions further in section 7 of this decision report.

4.9 Alternative systems

[30] Most submitters in opposition sought that all the treated wastewater be discharged to land, either now or at some short time in the future. We understand the submitters' clearly enunciated reasons for such requests. However, that is not what has been applied for and it is not our role to redesign the applicant's proposed wastewater treatment and discharge system. It is our role to consider: (i) the potential adverse effects of the system for which consent has been sought and decide, having regard to the relevant regional policy framework, whether or not the potential adverse effects of the applicant's proposal can be appropriately avoided, remedied or mitigated; and, (ii) subject to that caveat, whether or not the granting of the consents sought will achieve the purpose of the RMA, which is to promote the sustainable management of natural and physical resources.

[31] Having said that, we acknowledge that under Schedule 4 Clause 6(1)(a) of the RMA, the applicant's AEE must include a description of any possible alternative locations or methods for undertaking the activity if it is likely that the activity will result in any significant adverse effect on the environment. In this case the activity is the discharge of treated wastewater. As we discuss later, while the effects of the discharges on most river values are minor, the same cannot be said for the effects on Maori interests and values.

[13] Email from Andrew Bashford, the MWRC Team Leader: Consents dated 18 November 2016 with attached documents.
[14] AEE, section 7.4; Officer's report, paragraph 120.

[32] Appropriately then, the applicant undertook an assessment of alternatives.[15] This included alternative treatment options, conveying the wastewater to the Palmerston North or Feilding municipal wastewater treatment plants, various land discharge and storage options and various surface water discharge options.

[33] We acknowledge the work undertaken by the applicant to look at alternatives, but we are not persuaded that the feasibility and practicality of further reducing, or avoiding altogether, the discharge of treated wastewater to the Oroua River was assessed in a sufficiently robust manner. In that regard we find in favour of the applicant's proposal to review, on a five-yearly basis, the feasibility of moving to a full land discharge system. We note that proposal was developed in response to Ngati Kauwhata's concerns.

5 Section 104 matters

[34] We now address the relevant aspects of the application in terms of section 104 of the RMA.

5.1 Actual and potential effects on the environment

[35] The potential adverse effects of the applications were addressed in the AEE and its associated technical reports, the applicant's evidence, submitter evidence and the officer's report and supporting technical reports. We now address these effects in relation to each of the activities for which consent has been sought. However, before doing that we discuss the effects of the current discharges, the values of the Oroua River, and the issue of the best practicable option.

5.1.1 Effects of current discharges

[36] The AEE[16] and some of the evidence[17] describe the effects of the current discharges on the Oroua River. That provides interesting background information and for the proposed discharges from the treatment and storage ponds to groundwater, for which no change in operation is proposed, those current effects can inform the potential effects of concern to us. However, for the direct discharge to the Oroua River a quite different discharge regime (as summarised at paragraph [6] above) is proposed. Therefore, we do not intend to refer extensively to the effects of the current discharge regime, preferring instead to address the potential effects of the proposed discharge regime.

5.1.2 Oroua River Values

[37] The consents are to be assessed against the provisions of the NPSFM 2014 and the operative One Plan. We discuss that further in sections 5.1.5, 5.1.7 and 5.1.8 of this decision report. However, at this stage we wish to discuss the specific values that apply to the Oroua River at the point of discharge. This is important because Part 1 of the One Plan (the regional policy statement) (RPS) contains Objective 5-2 Water Quality which states:[18]

> **Objective 5-2: *Water^* quality**
> (a) Surface *water^* quality is managed to ensure that:
> (i) *water^* quality is maintained in those *rivers^* and *lakes^* where the existing *water^* quality is at a level sufficient to support the Values in Schedule B

[15] AEE, Chapter 6.
[16] AEE, section 3.3, page 7.
[17] For example, Statement of Evidence of Dr Olivier Michel Nicolas Ausseil (Water Quality and Ecology) On behalf of AFFCO, 26 October 2016, paragraphs 72 to 79, pages 18 and 19.
[18] Clauses (iii) and (iv) of Objective 5-2 are not relevant here.

(ii) *water^* quality is enhanced in those *rivers^* and *lakes^* where the existing *water^* quality is not at a level sufficient to support the Values in Schedule B

[38] Consequently, to appropriately have regard to Objective 5-2 we must firstly identify the Schedule B values that should be given the most weight. The point of discharge is in the Middle Oroua (Mana_12b) Water Management Sub-zone. Page B-6 of Schedule B itemises the zone-wide and site / reach-specific values that apply to that part of the Oroua River. These values were listed in the officer's report[19] and in the evidence of Hywel Edwards, a planning consultant appearing for the applicant.[20] However, we consider that several of the values listed by the planners should be afforded little, if any, weight as we now discuss.

[39] Importantly, Part B.3 of Schedule B lists the "Management Objectives" for each value and the locations where the values apply. We consider that these objectives and locations are determinative in deciding the weight that should be afforded to the Schedule B values when assessing the AFFCO applications.

[40] "IA – Industrial Abstraction", "I – Irrigation" and "SW – Stockwater" are zone-wide values. The management objectives for these values are that the water is, respectively, suitable as a source for industrial abstraction, a source for (clean water) irrigation and a supply of drinking water for stockwater. We had no evidence before us regarding the extent to which the Oroua River was used for those purposes nor that any of those objectives would be compromised by the AFFCO discharges. Therefore, while these are relevant values we afford them little weight.

[41] "EI – Existing Infrastructure" is a zone-wide value. Its management objective is that the integrity of existing infrastructure (such as roads, culverts and bridges) is not compromised. The AFFCO discharges are not capable of compromising such physical structures and so we find that the EI value should be afforded little, if any, weight.[21]

[42] "SOS-R – Sites of Significance Riparian" is a reach specific value. Table B.4 on page B-35 of Schedule B identifies that the riparian habitat value at this location is gravel and sand for the NZ Dotterel. The AFFCO discharges to the Oroua River are unlikely to impact on dotterel gravel and sand habitat in the river. No party raised this as an issue of concern. We find that the SOS-R value should afforded little, if any, weight.

[43] "WS - Water Supply" is a reach specific value. Part B.3 of Schedule B of the One Plan states that the value only applies to catchments above surface water takes for community supply. The AEE stated that there are no known abstractions of human drinking water from the Oroua River downstream of the AFFCO discharges.[22] We received no evidence to the contrary. Additionally, as shown in One Plan Figure B.10, the relevant reach where the WS value applies is located upstream of the AFFCO discharge. We find that the WS should be afforded little, if any, weight.

[19] Officer's report, paragraph 21. Page 5.
[20] Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited, 27 October 2016, paragraph 26, page 8.
[21] We note that flood control scheme infrastructure is dealt with under the more specific FC/D value.
[22] AEE, section 11.2.1, page 63.

[44] The "DFS – Domestic Food Supply" is a reach specific value. Table B.13 on page B-115 of Schedule B of the One Plan states that in this location the DFS value relates to "seed potato production". We had no evidence before us of that being an issue of concern in relation to the AFFCO discharges and so we find that the DFS value should be afforded little, if any, weight.

[45] "FC/D – Flood Control and Drainage" is a reach specific value. Its management objective is to not compromise the integrity of existing flood and river erosion structures that are part of a flood or erosion control scheme. The FC/D value is therefore only relevant to the proposed discharge structure in the bank of the Oroua River.

[46] Consequently, we find that the relevant Schedule B values for the Oroua River to which we should afford full weight under Objective 5-2 of the One Plan is more refined than that suggested by Ms Manderson and Mr Edwards. Those values are:

Zone-wide values:

- LSC – Life-Supporting Capacity
- AE – Aesthetic
- CR – Contact Recreation
- MAU – Mauri
- CAP – Capacity to Assimilate Pollution

Site / Reach-specific values:

- AM - Amenity
- TF – Trout Fishery
- FC/D - Flood Control and Drainage[23]

[47] Schedule E of the One Plan contains numerical water quality targets. We understand that these targets are designed to maintain or enhance the relevant Schedule B values applying to the region's rivers. The One Plan does not specify a date by which the targets must be achieved. We discuss the Schedule E targets that are germane to the Schedule B values in section 5.1.8 of this decision report.

[48] We note that some submitters[24] suggested that the discharge of treated wastewater to the Oroua River might not comply with Islamic religious beliefs which was suggested as being relevant as the AFFCO plant purported to meet halal requirements for killing stock. We heard no qualified evidence on that matter and there were no Islamic submitters. We have decided to give that matter little weight and consider it to represent a business risk to AFFCO as opposed to an environmental effect that we need to address.

5.1.3 Best Practicable Option

[49] The AEE[25] and evidence[26] discuss the issue of the "best practicable option" (BPO) as defined in Part I, Section 2 of the RMA. The need to examine if each of the proposed discharges constitute the best practicable option is in this case specifically guided by the One Plan provisions.

[23] Only in relation to the proposed discharge structure.
[24] Including Christina Paton
[25] AEE, sections 6.5 and 11.3.2.
[26] For example, Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited**,** 27 October 2016, paragraphs 4(d), 41(a), 105, 106(g) and 118.

[50] Regarding the direct discharge[27] to the Oroua River, RPS Policy 5-9(g) states that we must have regard to whether it is appropriate to adopt the best practicable option. Further guidance on the circumstances where a BPO approach might be appropriate is provided by regional plan Policy 14-1(c). The circumstances are where it is difficult to establish discharge parameters; or the potential adverse effects are likely to be minor and the costs associated with adopting the best practicable option are small in comparison to the costs of investigating the likely effects on land and water.

[51] Neither of the Policy 14-1(c) circumstances apply here. Comprehensive discharge standards have been established and recommended[28] to us and the likely effects on water have been fully investigated. We find that we do not need to consider if the direct discharge to the Oroua River is the best practicable option.

[52] Regarding the land irrigation of wastewater and the associated discharge of pond solids, RPS Policy 5-6 requires discharges to land to enhance groundwater quality where it is degraded because of human activity. An exception can be made where the best practicable option is adopted for the treatment and discharge system. The groundwater under the land discharge area is degraded. However, as we discuss further in section 5.1.5 of this decision report, we consider that the proposed land irrigation of wastewater is likely to enhance the underlying groundwater quality due to the larger area of land being used in conjunction with a deficit irrigation system.

[53] Further guidance is provided by regional plan Policy 14-2(d) which is similar to Policy 14-1(c) discussed above. Again, discharge standards have been recommended[29] to us and the likely effects on land and water have been fully investigated. We find that we do not need to consider if the land irrigation of wastewater and associated discharge of pond solids is the best practicable option.

[54] Regarding the discharge to groundwater resulting from seepage from the treatment and storage ponds, RPS Policy 5-6 and regional plan Policy 14-2 also apply. Again, the groundwater is degraded, but in this case it will not be enhanced as no change is proposed to the current discharge from the ponds. No discharge standards are recommended as they are difficult to establish. Consequently, we find that we do need to consider if the proposed discharge to groundwater from the treatment and storage ponds is the best practicable option. We discuss that further in section 5.1.7 of this decision report.

5.1.4 Discharge structure

[55] As we have noted previously, AFFCO has sought a land use consent to construct a diffuse discharge structure in the bank of the Oroua River together with a new bed level control structure in the Otoku Stream. The bed level control structure is to enable continuous fish passage between the Oroua River and the Otoku Stream while stabilising the steep lowest reach of the stream. The rock filter discharge structure provides for the discharge of treated wastewater to the Oroua River. A new pipeline will convey the treated wastewater to the discharge structure, bypassing the Otoku Stream's lower reaches, which were previously used to convey the wastewater to the Oroua River.[30]

[27] We acknowledge that the discharge will pass through a rock diffuser, but we consider that it is for all intents and purposes a direct discharge to the river.
[28] Recommended General Condition 11.
[29] Recommended Discharge of Treated Wastewater and Pond Solids to Land Condition 11.
[30] Statement of Evidence of Peter Hamilton Hill (Environmental) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 17.

[56] Removing the passage of treated wastewater from the lower reaches of the Otoku Stream will have a significant positive effect on that waterbody. We also note that the use of the proposed discharge structure was informed by consultation with Ngati Kauwhata and was considered by the applicant to go some way to addressing concerns regarding the mauri and wellbeing of the Oroua River.[31] We discuss the issue of mauri (a key One Plan Schedule B value) further in section 5.1.9 of this decision report.

[57] In terms of the localised effects of the discharge structure, we agree with Peter Hill, an environmental advisor appearing for the applicant, that the relevant matters are its physical stability, ensuring that it does not compromise the integrity and functionality of Lower Manawatu Scheme's river control and flood protection works managed by MWRC, and ensuring that the fish passage capability to the Otuku Stream is in fact delivered.[32]

[58] Those matters were addressed by Jon Bell, a Senior Design Engineer at the MWRC. Mr Bell concluded that the proposed discharge structure met the relevant design standards[33] for river protection works and he recommended its technical approval, subject to the imposition of conditions of consent[34] that he specified. Mr Bell's opinion was that adherence to those conditions would avoid the structure being adversely impacted by a flood event, result in the completed works being stable, and result in the structure not being likely to increase the upstream or downstream risk of erosion. [35]

[59] The applicant has accepted the conditions recommended by Mr Bell. Ms Manderson considered that subject to the recommended conditions the potential effects of the proposed structure on the river bed would be no more than minor.[36] We agree and find that granting consent for the discharge structure would support the One Plan Schedule B FC/D value for the Oroua River and enhance the LSC, AE and AM values of the Otuku Stream. We address the MAU value in section 5.1.9.

5.1.5 Discharge of wastewater to land

[60] The discharge of wastewater to land is described in the AEE[37] and in the evidence of Mr Lowe[38]. The discharge to land is an integral part of the Combined Land and Water Discharge (CLAWD) system the applicant has devised to minimise potential adverse effects. Key parts of the proposed land disposal system that were germane to our decision making were:

a. The irrigable area exceeds the ability of AFFCO to supply wastewater during summer months when water demand by pasture is high;
b. The irrigable area is divided into clearly demarcated land management units, each with a soil characteristic that determined whether irrigation rate was limited by hydraulics, or nutrient loss (nitrogen or phosphorus) below the root zone;
c. The disposal area is to be managed using deficit irrigation; i.e. application of wastewater will cease below field capacity (the point where excess water could run off the surface of the pasture).

[31] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 10.
[32] Statement of Evidence of Peter Hamilton Hill (Environmental) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 20.
[33] Subject to a minor agreed refinement regarding the use of 300 kg graded rock in the discharge structure instead of 500 kg graded rock.
[34] As set out and discussed in Appendix A to Mr Bell's section 42A report.
[35] Section 42A Report of Jonathon (Jon) David Bell, Senior Design Engineer for Manawatu Wanganui Regional Council, 5 October 2016, paragraphs 9 to 12.
[36] Officer's report, paragraph 72.
[37] Section 5.5.1
[38] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraphs 52-61.

[61] The applicant's evidence of land disposal was reviewed for MWRC by Dr David Horne, who has a PhD in Soil Science and is an Associate Professor at Massey University. Dr Horne concluded that that the proposed system to irrigate AFFCO's wastewater to land is sound[39] and noted a number of features of the proposed system that would minimise environmental effects. In particular, he singled out the "very conservative irrigation regime proposed by the applicant" which featured "a superior form of deficit irrigation" whereby there will still be a 5 mm deficit at the conclusion of irrigation on the most poorly draining soils[40].

[62] Dr Horne was of the view the applicant's estimates of nitrate leaching on Byreburn farm were underestimated, but nevertheless he did not see the estimates of nitrate leaching (40-60 kg N/ha/y) as being problematic, particularly when the benefits of land irrigation to river water quality are considered[41]. He also noted the application area was not in a sensitive management zone. In answer to the same question from the commissioners, both Mr Lowe and Dr Horne opined that the nitrate leaching from the wastewater irrigated pasture would not be significantly higher than that occurring when it was used solely for dairy farming[42].

[63] No submitters opposed the land disposal component of the application. Indeed the thrust of all submissions against the granting of consents was that all wastewater should be irrigated to land. We agree with both the applicant and council expert that the proposed land irrigation of wastewater is soundly based and consistent with sustainable management.

5.1.6 Odour and aerosols

[64] As discussed above, the applicant intends to discharge treated wastewater to land, together with composted paunch material and pond solids. Those activities all have the potential to produce offensive odours and aerosols. The applicant's position was that potential adverse odour effects arising from the spray irrigation of treated wastewater to land would be managed by the observance of buffer margins between irrigated areas and public roads or private properties and the development of irrigation operation protocols to factor wind speed and direction into operational decision-making, with a view to avoiding as far as practicable irrigation at times and/or in places that may carry a greater risk of adverse effect. The applicant considered that these measures would ensure that odour and aerosol effects would be no more than minor.[43]

[65] We note that odour and aerosol issues were not raised directly in any of the submissions.

[66] In early November 2016 the MWRC helpfully, if somewhat belatedly, commissioned Andrew Curtis, an independent air quality specialist and toxicologist, to comment on the conditions contained in the air discharge consent that had been proposed by the applicant. With our agreement, the MWRC circulated Mr Curtis' resultant memorandum to the parties prior to the hearing.[44]

[39] Section 42A Report of Dr David Horne on behalf of Horizons Regional Council, 5 October 2016, paragraph 10.
[40] Ibid, paragraph 23.
[41] Ibid, paragraph 31
[42] Because nutrients in the wastewater would substitute for nutrients otherwise added as fertiliser.
[43] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 70.
[44] Memorandum from Andrew Curtis (AECOM New Zealand Limited), Air Quality Addendum Review of proposed AFFCO air discharge consent application, dated 2 November 2016.

[67] Mr Curtis identified several issues with the applicant's proposal. He noted his concern with discharging wastewater to land potentially 24 hours per day, including during low odour dispersion conditions, which often occur during night time hours. Mr Curtis advised that while the irrigation of well aerated wastewater has a low potential for generating odour, in his experience it can become anaerobic (and therefore odourous) relatively quickly. He considered that leaving the composted paunch and pond solids on the ground for up to two days before incorporating them into the soil could give rise to nuisance odours on occasions.

[68] Mr Curtis recommended amendments to the conditions contained in the officer's report. These included refining the restrictions on wastewater irrigation occurring upwind and within 200m of adjoining properties; flushing the irrigation system if wastewater is left standing in it for more than 10 days; working the paunch and pond solids material into the soil within two hours of its application; not irrigating the treated wastewater to land if it has a Dissolved Oxygen (DO) concentration of less than 2 g/m^3; and undertaking monthly odour monitoring around the perimeter of the site during the months of wastewater irrigation to land.

[69] Mr Curtis' recommendations were responded to in supplementary evidence provided by Hamish Lowe.[45] Mr Lowe agree with Mr Curtis' recommendations regarding restrictions on wastewater irrigation occurring upwind and within 200m of adjoining properties. However, he opposed the other recommendations. He stressed the absence of odour complaints, the sparsity of adjoining residences, the fact that the paunch and pond solids were composted for five years before being spread to a small area of land and tilled into the soil. Mr Lowe considered that Mr Curtis' recommendations might be more appropriately incorporated into the Operation and Management Plan (OMP) for the site.

[70] We agree that the receiving environment for odours and aerosols is not a sensitive one, being primarily a rural setting. Consequently, we find that formal odour monitoring is not necessary and a robust system for dealing with future odour complaints, if any, will suffice. We also find that, apart from the agreed amendment to the condition of consent imposing restrictions on wastewater irrigation occurring upwind and within 200m of adjoining properties, the other matters raised by Mr Curtis can be dealt with in the site OMP.[46]

5.1.7 Discharge to groundwater from treatment ponds

[71] As we discussed above, the One Plan policy framework necessitates us considering whether the proposed discharge (seepage) from the wastewater treatment and storage ponds is the best practicable option (BPO). BPO is defined in the RMA as follows:

> **best practicable option**, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—
>
> (a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and
>
> (b) the financial implications, and the effects on the environment, of that option when compared with other options; and
>
> (c) the current state of technical knowledge and the likelihood that the option can be successfully applied

[45] Supplementary Evidence of Hamish Lowe on behalf of AFFCO New Zealand Limited, 11 November 2016.
[46] Including flushing the irrigation pipes and ensuring the treated wastewater remains aerobic.

[72] In this case the nature of the discharge is the passive seepage of treated wastewater from the base and sides of the ponds. The daily volume of discharge is unknown but could range between 50m^3/day[47] and 200m^3/day.[48] The immediate receiving environment is shallow groundwater which is not sensitive because, as noted by Mr Thomas in answer to our questions, there is no known use made of the shallow groundwater downgradient from the ponds. The financial implications of the existing option are minor as no expenditure on upgrades (such as lining the ponds) would be required. The financial implications of other options (lining the ponds or constructing new ponds) are significant, ranging from $1.2[49] to $2.5 million[50] for pond lining. Mr Lowe advised us verbally that it would be cheaper to build new ponds, but 6ha of land would be required and that could be problematic.

[73] As noted by Mr Thomas, groundwater quality monitoring shows that effects from pond seepage are evident in the area immediately around the ponds, where a combination of high concentrations of nitrogen, elevated conductivity and elevated chloride concentrations imply that seepage from the ponds occurs. Those effects do not appear to be widespread around, and downgradient of, the ponds, with other nearby bores showing generally low concentrations of parameters.[51] The effects on the environment of the existing option are likely to be minor, although the paucity of groundwater monitoring data generates some uncertainty in that regard. Other options (pond lining or new ponds) would avoid those effects. Lining the ponds could face technical impediments due to the high surrounding groundwater level and lining the ponds would disrupt the operation of the plant.

[74] On balance, we find that the continuation of the status quo is the BPO for the treatment and storage ponds at this stage, pending the gathering of more groundwater quality monitoring data and a more robust quantification of the effects of the pond seepage on groundwater and river water quality. The appropriateness of the status quo can then be reviewed in the future and the conditions recommended to us provide for that to occur.

[75] We now discuss the effects of the discharges in relation to the relevant One Plan Schedule B values.

5.1.8 Discharge to Oroua River

[76] In Section 5.1.2 we determined that the Schedule B values for the Oroua River to which we should afford most weight under Objective 5-2 of the One Plan were; LSC- Life-Supporting Capacity, AE - Aesthetic, CR- Contact Recreation, MAU - Mauri, CAP - Capacity to Assimilate Pollution, AM – Amenity, TF- Trout Fishing and FC/D – Flood Control and Drainage. FC/D is discussed in terms of the discharge structure in Section 5.1.4, whilst impact on MAU – Mauri is discussed in the next section 5.1.9.

[47] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 86;
[48] Section 42A Report of Neil Thomas, Senior Hydrologist on behalf of Manawatu-Wanganui Regional Council, 5 October 2016, paragraph 31.
[49] Memorandum from Rex Corlett to Tabitha Manderson, 12 October 2016.
[50] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 94.
[51] Section 42A Report of Neil Thomas, Senior Hydrologist on behalf of Manawatu-Wanganui Regional Council, 5 October 2016, paragraph 67.

[77] These values may be addressed broadly in terms of water quality targets which are set out in Schedule E of the One Plan. The targets for all rivers and streams in the middle Oroua subzone (12b), applicable to the AFFCO discharge was set out in the evidence of Mr Logan Brown[52]. He told us that at the time the One Plan was being developed it was proposed that if the targets were complied with, the effects of an activity on the receiving water body were likely to be no more than minor.

[78] Dr Ausseil (expert witness for the applicant) did not disagree with Mr Brown's summary of the applicable targets, but pointed out (as one of the authors of Schedule E) that the targets were developed for different purposes; not simply as a measure against which point source discharges can be assessed. Of direct relevance to the AFFCO application, he told us that some targets such as DRP and SIN do not directly relate to effects on river values, rather they are a sub-set of controlling factors to other factors (such as periphyton growth), which can directly affect river values. Specifically, from a technical point of view, in-stream nutrients (DRP and SIN) can be considered subordinate to the periphyton and macroinvertebrate targets. We agree with Dr Ausseil's interpretation of the nutrient targets, particularly with respect to the Section B values that are considered most important in this case.

[79] With respect to life supporting capacity, the most relevant Schedule E targets are pH, temperature, dissolved oxygen (DO), periphyton cover, periphyton (chlorophyll *a*) MCI, QMCI, ammoniacal nitrogen, toxicants (unspecified). There was no evidence from any party that targets for pH, temperature, DO, ammoniacal nitrogen, or other (unspecified) toxicants were not being met.

[80] Both Mr Brown and Dr Ausseil agreed that a one-off survey (2010) showed that MCI targets were not met for the current discharge. However, we accept Dr Ausseil's evidence that he expects a significant improvement in macroinvertebrates downstream of the discharge with the proposed discharge regime, because of the expected reduction in periphyton. We also accept his recommendation that upstream and downstream monitoring of invertebrates are appropriate to quantify the improvement, which cannot be predicted accurately through modelling.

[81] Periphyton and periphyton cover, are also relevant targets for protection of aesthetic (AE) and trout fishing (TF) values, together (indirectly) with DRP and SIN. Temperature, pH, DO, and visual clarity are also relevant target for TF, but meeting these targets was not challenged by any party. We note Figure 1 and Table 1 of Mr Brown's supplementary evidence[53] showed that brown trout are only occasionally found in the Oroua below the AFFCO discharge despite the targets being met (whereas they appear relatively abundant in the Upper Catchment).

[52] Section 42A Report of Logan Brown for Horizons Regional Council, 5 October 2016, Table 2
[53] Supplementary Report of Logan Brown for Horizons Regional Council, 5 December 2016

[82] There was considerable level of agreement between Mr Brown (for MWRC) and Dr Ausseil (for AFFCO) on the whether the targets to protect aesthetic values would be met. Mr Brown placed rather more emphasis on meeting DRP and SIN targets[54] [55]. As noted above, Dr Ausseil considered meeting of SIN targets and DRP targets subordinate to the meeting of periphyton targets. In other words, if periphyton targets are met, then the exceedance of SIN or DRP targets is of lesser consequence. We agree with Dr Ausseil's analysis that exceedance of periphyton targets is only an issue below the Feilding WWTP and is a cumulative effect of all point source and non-point source discharges upstream.[56] We also agree with Dr Ausseil that although there is evidence for exceedance of the Schedule E target for periphyton in April/May (when a discharge to the river could occur), this only occurs currently during dry years. Dr Ausseil's modelling for the proposed discharge[57] regime also convinced us that the risks of the periphyton target(s) being exceeded during the April/May period was low, since predicted improvements in the volumes of wastewater discharged are greatest in those months and constitute a 93% (April) and 94% (May) reduction in comparison to the current discharge. Dr Ausseil predicted that the proposed discharge will result in a 0.1% increase in periphyton biomass between upstream and downstream sites and would be unlikely to be detectable.

[83] The most relevant Schedule E targets to protect contact recreation (CR) values are *E. coli*. Mr Brown noted that *E. coli* targets were not currently met upstream of the AFFCO discharge and that while the discharge was not a significant contributor it did add to the cumulative effects[58]. He considered that UV treatment is commonly used on wastewater where discharge to a river occurs at a time where it may be used for contact recreation. However in this case, where discharge would only occur between median and 20th FEP river flows at times of the year when contact recreation was likely, he considered that UV treatment would be less effective because of low river water clarity. Despite the lack of microbiological treatment for the proposed discharge, Dr Ausseil predicted that the effective *E. coli* concentration in the river due to AFFCO's discharge would decrease slightly from the current state to the proposed regime.[59] However, considering the upstream site routinely breaches the target (95%ile less than 550 *E. coli*/100mL) and the predicted 99th percentile concentration increase associated with the proposed discharge is < 5 *E. coli/*100m, he considered the effects to be minor.

[54] Section 42A Report of Logan Brown for Horizons Regional Council, 5 October 2016 paragraphs 57-63 and 87
[55] Supplementary Report of Logan Brown for Horizons Regional Council, 16 November 2016, paragraphs 4-6, 9-10
[56] Statement of Evidence of Dr Olivier Ausseil for AFFCO, 26 October 2016, paragraph 43.
[57] Ibid, paragraphs 80-92
[58] Section 42A Report of Logan Brown for Horizons Regional Council, 5 October 2016, paragraphs 67-68.
[59] Statement of Evidence of Dr Olivier Ausseil for AFFCO, 26 October 2016, paragraphs 73 and 83.

[84] Because (i) the discharge will not occur in summer when contact recreation could be expected to be at its peak, (ii) the contribution by AFFCO to riverine *E. coli* concentrations is only ~1% of the upstream load, and (iii) AFFCO have undertaken by way of an *Augier* condition to miminise discharges to the river during April/May when contact recreation may still be occurring, our view is that this is acceptable. While we do not subscribe to Mr Brown's view that the exceedance of *E. coli* targets upstream of the AFFCO discharge represents over-allocation (since no allocation has been made) we do agree with Mr Brown[60] that the minor increase in *E. coli* concentrations in the Oroua river downstream of the AFFCO discharge may represent an increased health risk to river users. However, in our view, the very minor increase in *E. coli* concentrations due to AFFCO is not sufficient to quantify any increase in health risk, and given the large load of microbial contaminants from upstream, it would be unreasonable to require further reductions in *E. coli* from AFFCO at this stage; particularly as the proposed discharge regime will decrease their contribution significantly. However, microbial contamination is an issue that diminishes both the contact recreation value and mauri of the Oroua River and it is a contributing factor in our decision making; particularly on the issue of the term of consent. It is also an issue that may be subject to periodic review especially if efforts to reduce *E. coli* concentrations upstream of the AFFCO discharge are successful.

[85] Overall we find that the proposed discharge regime will greatly improve the water quality of the Oroua River downstream and, with the exception of contact recreation, allows all relevant values that can be quantitatively addressed by targets to be met.

[86] We now address the issue of the effects of the discharge on mauri.

5.1.9 Maori interests and values

[87] It is generally acknowledged amongst Maori that all things have mauri. Also, we understand that collective entities, within which each individual entity has its own mauri, form a collective mauri. For example, a river, stream, or forest has a collective mauri, as does an iwi or community such as the tangata whenua (local people of the land). Also, large natural features such as mountains and hills, and lakes and coastal estuaries have their own mauri. In terms of the natural environment, to Iwi Maori, mauri forms an important measure for sustainable resource management. Where the collective mauri of a forest, river or lake was adjudged by a tohunga (high priest or expert) to have been diminished in any way shape or form, measures were put in place to restore the mauri. One such measure was called rāhui.

[88] Where there is a disconnect between tangata whenua – hau kainga (local people) and the resource, in this case the waters of the Oroua River, then mauri is decreased.

[89] The discharge structure that has been proposed by the applicant and the area of 'wetland' immediately above the structure will go some way towards enhancing the mauri of the water prior to discharge. An agreed cultural health monitoring framework incorporating criteria and indicators of the mauri of the discharge, between the applicant and tangata whenua should mitigate and provide a pathway to address the concerns of tangata whenua.

[90] We address the issues raised by tangata whenua submitters in section 5.6 of this decision report as we consider that the relevant RPS provisions provide useful context for discussing those issues.

[60] Supplementary Report of Logan Brown for Horizons Regional Council, 16 November 2016, paragraph 7.

5.2 National environment standards

[91] There are no relevant national environmental standards.[61]

5.3 Other regulations

[92] There are no other relevant regulations that were brought to our attention and we ourselves are not aware of any.

5.4 National policy statements

[93] The National Policy Statement for Freshwater Management 2014 (NPSFM) is relevant and we must have regard to it under section 104(1)(b) of the RMA. Part A of the NPSFM deals with water quality. Objective 1 is that in sustainably managing the discharge of contaminants the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water is safeguarded; as is the health of people and communities, at least as affected by secondary contact with fresh water. That mirrors the objectives and policies of the One Plan and that plan's relevant Schedule B values.

[94] Policy A3 is to impose conditions on discharge permits to ensure the targets specified under Policy A1 and A2 can be met. The One Plan contains 'management objectives' for the Oroua River in Schedule B and numerical surface water quality targets for the river in Schedule E. However, the Schedule E targets were not set in accordance with Policies CA1 to CA4 of the NPSFM and so we consider that Policy A3 does not strictly apply.

[95] Nevertheless, Schedule E of the One Plan is clear and One Plan (RPS) Policy 5-2 states that Schedule E must be used to inform the management of surface water quality in the manner set out in Policies 5-3, 5-4 and 5-5. We addressed that in preceding sections of this decision report and we discuss that further below.

[96] Policy A4 is not relevant as the application was lodged in February 2011 which predates the dates in Policies A4(4) and (5).

[97] Part D of the NPSFM deals with tangata whenua values and interests. It addresses the need to identify and reflect those values and interests in the management of fresh water. We have done so earlier in this decision report.

5.5 New Zealand Coastal Policy Statement

[98] The New Zealand Coastal Policy Statement is not relevant.

5.6 Regional policy statement

[99] The One Plan contains the regional policy statement (Part I) and the regional plan (Part II). The RPS was addressed comprehensively in the AEE,[62] the evidence of Mr Edwards[63] and the officer's report.[64] We have had regard to the planner's opinions when reaching our own conclusions on the RPS provisions which we set out below.

[61] There are no known abstractions of human drinking water from the Oroua River downstream of the AFFCO discharges.
[62] AEE, section 11.3, pages 65 to 72.
[63] Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited, 27 October 2016, paragraphs 90 to 111.
[64] Officer's report, paragraphs 92 to 119.

[100] We firstly address tangata whenua issues as we received submissions from a range of tangata whenua submitters. The key submission points from each submitter can be summarised as follows. We heard from Mr Dennis Emery from Ngati Kawahata. His primary statement was that all discharges into the Oroua River must be stopped. This was the position that Ngati Kauwhata expressed in their initial submission prior to the hearing.

[101] Mr Emery stated that Ngati Kauwhata would consider a joint management agreement under section 36b of the RMA with MWRC. This would be by way of a framework whereby Ngati Kauwhata could contribute to planning decisions relating to the Oroua River. He also stated that Ngati Kauwhata would support other initiatives such as cultural health monitoring of the Oroua River as well as a mapping project whereby Ngati Kauwhata could build a repository regarding information pertaining to sacred sites of significance to Ngati Kauwhata. These are not matters that we can address.

[102] The panel also considered a cultural impact assessment (CIA) prepared for Ngati Kauwhata by April Bennett. The CIA acknowledged that "there appears to be a significant improvement on the current discharge" and that AFFCO have undertaken work to reduce the physical impacts of discharge on the Oroua River. Ms Bennett acknowledged that the AFFCO consent proposal does meet a number of One Plan targets for river health. However, she considered that the application did not achieve the Ngati Kauwhata cultural and spiritual aspirations for the Oroua River. Ms Bennett considered that even under the measures being proposed by AFFCO, Ngati Kauwhata would not be comfortable with any discharge to the river.

[103] The CIA explored options to work with AFFCO over the next 10 years to consider options to remove any discharge to the river, so it would seem to us that Ngati Kauwhata are at least comfortable for the discharge as proposed to be undertaken within that timeframe. The CIA also noted some conditions that they consider important, particularly regarding DRP, periphyton, macro invertebrate monitoring and water clarity. We have had regard to those matters when considering appropriate conditions of consent.

[104] Mr Robert Ketu spoke on behalf of Ngati Whakatere. They also stated their overall opposition to the consent application pending further information, but it wasn't clear to us what this was. We assume it to be a cultural impact assessment of their own and cultural monitoring procedures. Mr Ketu asked the panel to consider a fixed bed technology solution concerning discharge to the Oroua River. He said that the "Papatuanuku" system Ngati Whakatere had developed had been three years in development. Mr Ketu acknowledged that the system proposed was still under development. Ngati Whakatere stated that as kaitiaki, mitigating and monitoring systems needed to be implemented to assess and monitor the mauri of the river. They also stated that there must be a clear process of working through the issues. The process and issues were not identified by Mr Ketu, although he stated that he anticipated that these would be identified through consultation with AFFCO.

[105] Paul Horton from Rangitane o Manawatu spoke to the written submission provided and also tabled the Rangitane o Manawatu deed of settlement summary. Mr Horton spoke about cultural health indexing, and stated that the Ngati Kauwhata CIA was not acceptable to Rangitane o Manawatu. He said the Iwi were agreeable to discuss their concerns with AFFCO, however to date this had not taken place. Mr Horton also said that in spite of Rangitane o Manawatu signing off on their deed of settlement 12 months ago, and that they had a range of statutory acknowledgements and deeds of recognition over the Oroua River they were yet to be engaged by AFFCO.

[106] In response to these issues and concerns, Ms Manderson noted that "the submissions received from iwi groups raised concerns (as) to the cumulative effects of the proposed discharges". She noted that, at least from a Ngati Kauwhata view, the primary concerns were based on a degradation of the cultural, nutritional, and spiritual properties as they relate to the Oroua River. Ms Manderson also noted that she considered that there would be adverse cultural effects as a result of the discharge, and the CIA contained some recommended conditions that may go some way to addressing the concerns of Ngati Kauwhata. She then provided some commentary about Chapter 2 of the RPS - One Plan.

[107] Ms Manderson stated that it is clear from submissions from tangata whenua that the discharge will negatively impact on their abilities to discharge their roles as kaitiaki. Objective 1 of the One Plan requires consideration of the mauri and natural and physical resources as well as giving particular regard to kaitiakitanga and the relationship of hapu and iwi with water. Under Policy 2-4 specific resource management issues identified as being significant are set out. Policy 2-4 (a) relates to the management of water quality in the Region; and Policy 2-4(d) relates to access to and availability of clean water to exercise cultural activities are considered relevant to this application.

[108] Ms Manderson advised that based on the evidence from submissions and the CIA cultural activities do not currently occur in the Oroua River, due to (at least in part) to degraded water quality; and primarily for that reason there is a strong preference to have the discharge removed from the River in its entirety. She also stated that "I do not consider that the proposal is fully consistent with the above Objective and Policies but there are recommendations in the CIA received that may go some way to assisting with achieving greater consistency".

[109] In considering those submissions from tangata whenua Iwi groups we understand that all of the cultural concerns outlined above may not be fully addressed through the consent conditions. Nevertheless, we concur with Ms Manderson that this is not sufficient grounds alone to decline the consent. We find that cultural monitoring should mitigate many of the concerns of tangata whenua and we propose that the applicant provides monitoring and compliance requirements that will help to address the physical effects that give rise to cultural concerns. While we recognise and acknowledge that our decision will not address all the issues of concern to tangata whenua as outlined to us by the submitters (as set out at length above), what is being provided for in the consent conditions, together with the provision of a pre-discharge structure including a wetland, may well mitigate many of the concerns that were outlined.

[110] We now consider other aspects of the RPS.

[111] Chapter 3 - Infrastructure, Energy, Waste, Hazardous Substances and Contaminated Land requires recognition of regionally important infrastructure and the role it plays in servicing communities. In this case that relates only to the effects of the applicant's proposal on the Oroua River flood control scheme as the AFFCO plant does not constitute infrastructure as defined in the RMA.[65] We addressed the discharge structure earlier in this decision report.

[112] Chapter 5 – Water addresses discharges to land and water.[66] Objective 5-1 is that the Oroua River is managed in a manner which safeguards its life supporting capacity and recognises and provides for the Values in Schedule B. Objective 5-2 is that surface water is maintained where it is at a level sufficient to support the Values in Schedule B and enhanced where it is not. We note that Schedule B forms a component of Part II of the One Plan, namely the regional plan. Similarly, under Objective 5-2 groundwater quality is to be maintained or enhanced where it is degraded.

[113] In section 5.1.2 of this decision report we identified the Schedule B Values that we consider should be afforded the most weight. We addressed those values, together with relevant Schedule E numerical water quality targets, in sections 5.1.7 and 5.1.8 of this decision report. Policy 5-2 states that the management of surface water quality is to be informed by the water quality targets contained in Schedule E in the manner set out in Policies 5-3, 5-4 and 5-5. For the reasons set out in sections 5.1.5, 5.1.7 and 5.1.8 of this decision report, we are satisfied that the applicant's proposal for discharges to the Oroua River and the land irrigation of treated wastewater are consistent with Objectives 5-1 and 5-2 and Policy 5-2.

[114] The discharge (or seepage) of treated wastewater from the base of the treatment and storage ponds will not enhance the degraded groundwater quality near those ponds. However, under Policy 5-6(b) that is permissible if the treatment and discharge system is the best practicable option. We have already found that to be the case (section 5.1.7 of this decision report).

[115] Objective 5-4 and Policies 5-22, 5-24 and 5-25 relate to the beds of lakes and rivers. Those provisions are only marginally relevant and then only in terms of the proposed rock discharge structure on the bank of the Oroua River. We discussed that structure in section 5.1.4 of this decision report. In terms of Policy 5-24 (which is relevant to the Schedule B FC/D value for this reach of the Oroua River) we are satisfied from the report of Mr Bell that the degree of flood hazard and erosion protection existing at the time of Plan notification (31 May 2007) will be maintained. We find that the applicant's proposal in consistent with the provisions at the start of this paragraph.

[116] Policies 5-7 and 5-8 are not directly relevant to the AFFCO applications as they are either targeted at the MWRC or address farming.

[65] Mr Edwards contended that the wastewater system qualified under clause (e) of the RMA definition of 'infrastructure', but for that to be so the system would need to be a 'water supply distribution system' which it is not. It is a wastewater treatment and disposal system.

[66] Objective 5-3 relates to water quantity and is not relevant here.

[117] Policy 5-9 provides additional matters that we must have regard to for the discharge of treated wastewater to the Oroua River. We have already addressed the Schedule B values (Policy 5-9(a)) and the Schedule E numerical water quality targets (Policy 5-9(b)). We are not persuaded that the proposed discharge is consistent with best management treatment practices (there is no UV treatment proposed for example), but we are nevertheless satisfied that the potential adverse effects of the discharge on most of the relevant Schedule B values are minor (Policy 5-9(c)). There is no need to allow time for improvements (Policy 5-9(d)) and the discharge is not temporary nor is it associated with necessary maintenance or upgrades (Policy 5-9(e)). There is no need to consider financial contributions (Policy 5-9(f)) as offset works cannot mitigate adverse effects on Schedule B MAU values. We have already concluded (section 5.1.3 of this decision report) that it is not necessary to require the adoption of the best practicable option for the discharge to the Oroua River (Policy 5-9(g)).

[118] Policy 5-10 provides additional matters that we must have regard to for the point source discharge (irrigation) of treated wastewater to land. The land is used for agricultural purposes and the discharge will not render it unsafe for that use (Policy 5-10(a)). The discharge will have no more than minor impacts on Oroua River water quality as the levels of nutrients leached will be akin to those that arise from permitted primary production land uses (Policy 5-10(b)). Further extensive proposed groundwater monitoring will confirm that. The nutrients and water discharged to land will be utilised by the plants grown on that land (Policy 5-10(c)). A deficit irrigation system is proposed (Policy 5-10(d)). Biodiversity issues do not arise given the productive use of the land receiving the treated wastewater (Policy 5-10(e)).

[119] Chapter 7 of the One Plan addresses air quality matters. Objective 7-1 is that ambient air quality is maintained at a standard which is not detrimental to amenity values, human health, property or the life-supporting capacity of air and meets the national ambient air quality standards.[67] Policy 7-2 sets out regional air quality standards. Relevantly in this case the discharge must not cause any offensive or objectionable odour beyond the property boundary. We are satisfied that with the management controls proposed by the applicant (including buffer areas and wind speed restrictions on discharging treated wastewater to land), the proposal will be consistent with RPS Objective 7-1 and Policy 7-2.

[120] We find that in overall terms the applicant's proposal is consistent with the relevant RPS policy framework.

5.7 Regional plan

[121] The regional plan was addressed comprehensively in the AEE,[68] the evidence of Mr Edwards[69] and the officer's report.[70] We have had regard to the planner's opinions when reaching our own conclusions on the regional plan provisions which we set out below.

[122] Chapter 12 – General Objectives and Policies contains Policy 12-5 relating to consent duration and Policy 12-6 dealing with RMA section 128 reviews. We discuss those matters in section 8 of this decision report.

[67] The national ambient air quality standards are set out in Policy 7-1 and none of them are relevant here.
[68] AEE, section 11.3, pages 65 to 72.
[69] Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited, 27 October 2016, paragraphs 112 to 123.
[70] Officer's report, paragraphs 122 to 129.

[123] Chapter 14 – Discharges to Land and Water is relevant. Objective 14-1 and Policies 14-1 and 14-2 largely mirror the imperatives in Chapter 5 on the appropriateness of imposing the best practicable option; matters which we have already discussed.

[124] Policy 14-3 relates to relevant industry-based standards (including guidelines and codes of practice), none of which were brought to our attention by any party. Policy 14-4 addresses the opportunity to utilise alternative discharge options, or a mix of discharge regimes. The AFFCO proposal, which utilises a discharge to land during the summer period when Oroua River flows are low, and discharges to water in the winter (but then only when the Oroua River is flowing above the median flow level) is entirely consistent with Policy 14-4 and gives effect to it in what we find to be a well-considered and commendable manner.

[125] Policy 14-8[71] addresses monitoring, particularly the need to monitor (meter and telemeter) the discharges to the Oroua River and to land, and monitoring and reporting on the quality of the discharge at the point of discharge before it enters the river and the quality of the river upstream and downstream of the point of discharge (after reasonable mixing). As we discuss in section 7 of this decision report, the conditions we intend to impose give appropriate effect to those requirements.

[126] Policy 14-9 repeats NPSFM Policy A4 and we dealt with that in section 5.4 of this decision report.

[127] Chapter 15 – Discharges to Air is relevant. Objective 15-1 and Policies 15-2(a) and (c)[72] largely mirror the imperatives in Chapter 7 which we have already discussed. The balance of Policy 15-2 sets out several matters that we must have regard to.[73] Policy 15-2(d) lists sensitive areas and Policy 15-2(e) addresses effects on scenic, landscape, heritage and recreational values. As far as we are aware the only sensitive areas and relevant scenic or recreational values are respectively the nearby residential properties and the Oroua River. We are satisfied that the conditions of consent we intend to impose will adequately avoid adverse odour and aerosol effects on those properties and the river. Tellingly, there were no submissions in opposition from neighbouring properties.

[128] Policy 15-2(g) addresses contingency measures to avoid accidental discharges. In that regard we note that recommended General Condition 21 appropriately requires the applicant to prepare an Operation and Management Plan which must (at item m) include a risk assessment plan and contingency plans in the event of system malfunctions or breakdowns.

[129] We find that in overall terms the applicant's proposal is consistent with the relevant regional plan policy framework.

[71] Policies14-5 Management of intensive farming land uses, 14-6 Resource consent decision-making for intensive farming land uses, and 14-7 Management of discharges of domestic wastewater are not relevant here.
[72] Policy 15-1 Consent decision-making for agrichemicals is not relevant here.
[73] Policy 15-2(b) relates to enforcement actions which are not relevant here.

5.8 Other matters

[130] Ms Nuku discussed the Manawatū-Whanganui Growth Study (July 2015) prepared by NZIER and Henley Hutchings on behalf of Ministry of Primary Industries, Ministry of Business Innovation & Employment. One of the eight opportunities for regional growth identified in the study was sheep and beef farming and processing.[74] We find this lends support to the applicant's desire to increase the volume of wastewater discharge by 20% above current levels.

[131] In saying that we note that we have not forensically examined the reasons for the 20% increase. That is the applicant's business. It is our role to assess the effects of the applications and the volumes of wastewater sought to be discharged.

5.9 Permitted baseline

[132] When forming an opinion for the purposes of subsection 104(1)(a) of the RMA we may disregard an adverse effect of the activity on the environment if a national environmental standard or a plan permits an activity with that effect.[75] We have not disregarded any such effects.

5.10 Value of investment

[133] Under section 104(2A) of the RMA, we must have regard to the value of the investment of the existing consent holder if the applications before us are affected by section 124 of the RMA. We were told that the value of the AFFCO Feilding Aorangi plant is around $130 million.[76] Unfortunately, as we noted at earlier in this decision report, we are unable to conclude that the discharge activities enjoy protection under section 124 of the RMA. Consequently, section 104(2A) does not apply.

[134] We note that this has not materially affected our assessment of the applications as our assessment is based on the potential adverse effects of the discharge activities on the relevant One Plan Schedule B values applying to the Oroua River. The situation may have been different had we found all or most of those effects to be significant.

5.11 Trade competition

[135] Under section 104(3)(a)(i) of the RMA we must not have regard to trade competition or the effects of trade competition. Issues of trade competition were not raised by the applicant or the submitters. Ms Nuku did make the point that AFFCO operates in a competitive meat processing environment. We understand that to be so, but we have afforded that little, if any, weight.

5.12 Written approvals

[136] Under section 104(3)(a)(ii) of the RMA we must not have regard to any effect on a person who has given written approval to the applications. We understand that no written approvals were obtained by the applicant.

[74] Statement of Evidence of Ann Nuku (Plant Manager) on behalf of AFFCO New Zealand Limited, 26 October 2016, paragraphs 31 to 33.
[75] Section 104(2) of the RMA.
[76] Statement of Evidence of Ann Nuku (Plant Manager) on behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 4.

5.13 Section 107 matters

[137] Under section 104(3)(c)(i) of the RMA we must not grant a consent contrary to section 107. That latter section states that we shall not grant a discharge permit if, after reasonable mixing, the contaminant water discharged (either by itself or in combination with the same, similar, or other contaminants or water), would be likely to give rise to all or any of a list of water quality effects.

[138] No party to the hearing presented any evidence that suggested that any of the water quality effects listed under section 107 (1) (c-g) is likely to occur as a consequence of this proposal. There is therefore no reason to decline the granting of the discharge permit because of section 107.

6 Section 105 matters

[139] Under section 105(1) of the RMA we must have regard to the nature of the discharge and the sensitivity of the receiving environment to adverse effects; the applicant's reasons for the proposed choice; and possible alternative methods of discharge, including discharge into any other receiving environment.

[140] We have discussed the nature of the discharge (treated meatworks wastewater) and the sensitivity of the Oroua River and groundwater receiving environments in preceding sections of this decision report. We understand that the applicant's reasons for their proposed choices are to make use of the existing wastewater treatment infrastructure at the Feilding site and the high cost of having the discharge alternatively occur solely to land (the only other viable receiving environment), as opposed to the proposed combination of discharges to land and discharges to the Oroua River when the river is above the median flow (winter) or 20th flow exceedence percentile (summer). We have already addressed the effects of the applicant's proposed discharge regime and found them to be acceptable.

[141] Mr Lowe has advised that to discharge solely to land, 250 ha (plus) of land would be required along with 180,000 m^3 of wastewater storage. He considered that the cost of the land and storage would be in the order of $4.5 million. The applicant has considered alternatives, including off-site discharge options such as piping the wastewater to either the Feilding or the Palmerston North municipal wastewater treatment plants.[77]

[142] In terms of methods of discharge, the proposed land irrigation of wastewater utilises industry standard methodology and the proposed rock diffuser in the bank of the Oroua River is preferable to a direct piped discharge to the river.

[143] We are satisfied that we have given appropriate regard to the section 105 matters.

[77] Statement of Evidence of Hamish Lowe (Project Overview, Development and Design) On behalf of AFFCO New Zealand Limited, 26 October 2016, Paragraphs 4(a) and (a).

7 Monitoring and reporting

[144] The applicant's proposed set of conditions included monitoring and reporting provisions. These were reviewed by MWRC staff before the hearing. As a result of evidence presented at the hearing, conferencing between the experts occurred during the hearing, which resolved many of the differences between the parties. Following the hearing, the applicant tabled a penultimate set of conditions that clearly highlighted where differences between the parties still occurred. In this section we summarise the monitoring and reporting provisions within this penultimate condition set and give our reasons for choosing either the applicants, or the MWRC version. In Section 10 our findings on monitoring and reporting are brought together with other conditions.

[145] Although no submitter presented specific evidence relating to monitoring and reporting during the hearing we note the applicant's closing submissions[78] stated that the Water Protection Society (Dr Teo-Sherrell) provided helpful comments on the proposed conditions outside of the hearing, some of which had been adopted by AFFCO in their penultimate condition set.

[146] AFFCO proposed a set of standards (General condition 8) for which treated wastewater discharging to either land or the Oroua River must comply. Standards were given for soluble carbonaceous five-day biochemical oxygen demand (S_cBOD_5), total suspended solids, *E coli*, total ammoniacal nitrogen and dissolved reactive phosphorus. Compliance is assessed based on meeting a standard on 8 out of 12 consecutive samples, or a lower standard (higher concentration) on 2 out of 12 consecutive samples. The standards were agreed between the parties for all except S_cBOD_5 and DRP.

[147] For S_cBOD_5 the applicant proposed a standard of 40 g/m^3 for 8 out of 12 consecutive samples whereas MWRC sought 29 g/m^3. We find in favour of AFFCO for the following reasons:

i. The report by van Oostrom[79] tabled at the hearing by Mr Lowe shows that the current discharge would be non-compliant for significant periods at 29 g/m^3, whereas it would largely be compliant at 40 g/m^3;
ii. There was no suggestion or evidence from any party to suggest that that the river suffers ecological effects from the current discharge,
iii. The actual load of BOD (and hence river concentration) will be controlled coincidentally at critical periods by the DRP loading requirement

[148] For DRP the applicant proposed a standard of 40 g/m^3 for 8 out of 12 consecutive samples whereas MWRC want 20 g/m^3. The corresponding standard for extreme values (2 out of 12 samples is 50 g/m^3 (AFFCO) and 26 g/m^3(MWRC)

[78] Closing submissions on behalf of AFFCO New Zealand Ltd, 9 December 2016, paragraph 19.
[79] Waste water treatment performance review. Prepared for AFFCO New Zealand Ltd Manawatu Plant by Albert van Oostrom, pages 13-14.

[149] This is a more difficult decision to make than that for S_cBOD_5.There are arguments on both sides as follows:

i. Actual river concentration will be controlled by condition 2 of the water discharge consent. As discussed by Mr Allen in closing[80] condition 2 of the water discharge consent gives the mechanism whereby the concentration of DRP in the river will be controlled. i.e. if the concentration in the effluent goes up then the volume discharge must go down,

ii. The applicant is seeking a doubling of the concentration standard from that suggested by MWRC based on historic data, arguing that more recent data[81] would make them non-compliant. In addition, it argued that future improvements in water efficiency will exacerbate that non-compliance. However, the van Oostrom graph (Figure 10) shows that most of the time the effluent is less than 30 g/m^3) and it is only on rare occasions that it approaches 40 g/m^3,

iii. There is no issue over discharges of high DRP concentration to land, and the discharge to the river will be governed by mass load,

iv. The sticking point in the applicant's argument is that they are reliant (in condition 2 water discharge consent) on the last recorded DRP concentration. However, DRP is only required to be monitored monthly (condition 9). The concentration does not matter (i.e. the concentration can be 40 g/m^3 for 8 out of 12 samples) in all river discharge conditions except when it is between median and 80%ile flow (when condition 2a (ii) of water discharge consent applies and condition 9 of the water discharge permit applies for monitoring). Under these circumstances there is a risk that at the commencement of discharge the last measured DRP concentration may be a month old. i.e. It could have been low but risen during the month (Fig 10 in van Oostrom shows that a rise of 10 g/m^3 DRP within a month can occur). Under this scenario there is a risk that the in-river DRP concentration (regulated by the equation in condition 2 a (ii) of the water discharge consent) may be significantly higher than that predicted from the preceding low concentration (which would have allowed a higher discharge rate).

[150] On balance we find in favour of AFFCO's wastewater DRP standards but have changed the frequency of sampling during the critical April/May period to account for the matter discussed above.

[151] As well as the treated wastewater standards, an additional suite of parameters to monitor are given in General Condition 10. There is no contention over this list. However, we note that the frequency of monitoring (monthly) is stipulated in this condition rather than condition 8. This was supported by Dr Ausseil, based on Mr Lowe's evidence that the quality of the final treated effluent is likely to be relatively stable. While this is generally true, as noted above there are instances where significant changes in DRP concentration can occur, especially during the critical April/May period. As the discharge to the river during this period is based on DRP loading, it is important that the concentration used in the discharge equation accurately reflects the actual concentration at the time of discharge. Our view is that relying on the previous month's data for DRP during this period is not adequate.

[80] Closing submissions on behalf of AFFCO New Zealand Ltd, 9 December 2016, paragraph 64.
[81] Waste water treatment performance review. Prepared for AFFCO New Zealand Ltd Manawatu Plant by Albert van Oostrom, Graph 10P

[152] Condition 12 of the General Conditions relates to flow measurement of the influent to the anaerobic ponds and the effluent to the Oroua River. MWRC have asked for accuracy of ± 5%. AFFCO maintain there are practical difficulties in meeting this accuracy for wastewater and have asked for wording reflecting the manufacturers specifications for the flow meter, and "where possible" to meet an accuracy of ± 5%. We find that the AFFCO suggested wording is too open-ended and not quantifiable, which could lead to significant inaccuracies in recording the volume of wastewater discharged, particularly in the critical April/May period. An accuracy of ± 5% is an industry standard for water metering and we have no doubt that it can be achieved for the river discharge. We therefore agree with the MWRC wording.

[153] Conditions 31 and 32 of the General Conditions relate to reporting requirements for the Cultural Health Monitoring. MWRC seek an update every 6 months summarising what actions have been undertaken since the date of the first invitation. AFFCO resist this requirement commenting that it is unclear what Horizons will do with it (seeing it is an AFFCO / iwi process), what benefit will it create, and what resource management purpose will it serve. In their view it will create greater administration costs.[82]

[154] We disagree. The cultural health monitoring protocols offered by AFFCO are fundamental to the resource management process, particularly to iwi who see it as partial mitigation for granting the consent. The six-monthly summary report need not be onerous and could be achieved simply by way of an email, rather than a formal report. In our view it will help ensure that momentum is maintained on cultural health monitoring and provide a mechanism for MWRC to assist in resolving any issues on progressing the monitoring.

[155] Condition 2 of the Water Discharge Permit relates to how river flows will be assessed (to facilitate the calculation of wastewater discharge volumes). AFFCO maintain that that checking the river flows at the Kawa Wool monitoring site at 9.00 am each day there is discharge will suffice for the following 24 hours. MWRC maintain that river flows may fluctuate significantly in the period and request that river flows are checked every 6 hours after the 9.00 flow reading. AFFCO's position is that regular checking introduces operational and cost limitations and is not necessary because river flows (particularly on the declining limb) do not change quickly enough to justify the additional effort.[83] We agree with AFFCO except during April/May where the evidence is that more precise load calculations are required. Changing the wording of the condition to require 6-hourly river flow checking during April-May "when discharge is occurring" will reinforce the offered condition to use best efforts to discharge to land from median- 20th FEP flows during that period.

[156] The remainder of river monitoring conditions encompassing macroinvertebrates, chlorophyll *a* and periphyton cover are agreed by the experts and we also agree that the conditions are suitable.

[82] Closing submissions on behalf of AFFCO New Zealand Ltd, 9 December 2016, paragraph 68.
[83] Closing submissions on behalf of AFFCO New Zealand Ltd, 9 December 2016, paragraph 69.

[157] The conditions relating to pond seepage includes a condition on preparing a water balance. AFFCO submit that this should only be required if the bore samples show a statistically significant elevation in contaminant concentration as assessed by an independent expert appointed by the applicant. MWRC request the applicant be required to prepare such a water balance, irrespective of the bore monitoring. We agree with MWRC. There is public concern on this matter and the applicants wording is too open to interpretation. We would have expected such a water balance to have been done as part of the application considering AFFCO were seeking a 35-year consent term and looking to retain the existing unlined ponds. The MWRC wording is unambiguous and should settle the issue once and for all.

[158] Proposed condition 14 of the pond seepage consent requires the permit holder to ensure the difference in volume of wastewater entering the anaerobic pond and the combined discharge to the river be no greater than 91,250m^3. MWRC have requested that this condition be deleted as it unclear how this condition would be achievable or enforceable. We agree and have deleted the condition. We note that condition 13, requiring a water balance be undertaken, will achieve the same result but in a less ambiguous way.

8 Consent duration and review

[159] The applicant has sought a consent duration of 35 years. Ms Manderson deferred making a recommendation on duration in her officer's report,[84] although she did not support the duration applied for and considered that an expiry date of 1 July 2029 could be appropriate.[85] In her concluding comments to us, Ms Manderson recommended an expiry date of 1 July 2029. We note that one submitter, Chris Teo-Sherrell, made the same recommendation.[86]

[160] The 2029 date derives from the application of One Plan Policy 12-5(b) to the Oroua Water Management Zone expiry date (or common catchment expiry date) of 2019. Mr Edwards also addressed Policy 12-5(b), but he recommended an expiry date of 2049 (a duration of 32 years).

[161] We note from the AEE[87] that a number of existing consents[88] for the site have an expiry date of 1 July 2029. We consider that it would be sound resource management practice to have all the consents for the site expiring at the same time. This will enable a comprehensive and integrated reassessment of the entire operation at that time. We are also guided by One Plan Policies 12-5(b) and (c). In that regard we acknowledge the evidence of Ms Nuku who stated that a short duration would create significant uncertainty within the company which could lead to reducing production from the plant or even its closure in a sector that is highly competitive.[89] However, an expiry date of 2029 for the applications before us would not exacerbate the existing uncertainty arising from the other consents for the plant that are set to expire at that time.

[84] Officer's report, paragraph 182.
[85] Ibid, paragraph 142.
[86] AFFCO wastewater treatment system resource consent hearing Oral submission, The Water Protection Society Incorporated, 15 November 2016, paragraphs 127 to 131.
[87] Section 3.3.
[88] River water take, river water diversion, reservoir outflow, air discharge (odour), boiler discharge, groundwater take, staff wastewater, paunch discharge.
[89] Statement of Evidence of Ann Nuku (Plant Manager) on behalf of AFFCO New Zealand Limited, 26 October 2016, paragraph 13.

[162] We also note that the current wastewater discharge consents expired in May 2011. An expiry date of 1 July 2029 would therefore equate to an 18-year duration for the replacement consents. We do not consider that to be a short duration. In answer to our questions, Ms Nuku advised that AFFCO's long-term planning occurred over a 15 to 20-year period. That coincides quite well with an 18-year consent term. We find that an expiry date of 1 July 2029 with an associated 18 year duration is an appropriate balance between environmental protection and applicant's investment in the Feilding plant.

[163] Regarding section 113(1)(b) of the RMA, the reasons for imposing a term shorter than that sought are the need to align with the One Plan Table 12.1 Oroua Water Management Zone common catchment expiry date and the resource management benefits of having all the consents for the site expiring at the same time.

[164] Policy 12-6 of the One Plan (Part II regional plan) addresses section 128 reviews. Ms Manderson recommended annual review opportunities. Mr Edwards proposed five yearly review opportunities but provided no reasons for his view.[90] Having regard to Policy 12-6, and particularly Policy 12-6(b) in terms of the uncertain effects of the treatment pond seepage on groundwater quality, we find that annual review opportunities are appropriate, noting of course that does not mean that a review will be initiated by the MWRC every year.

9 Part 2 matters

9.1 Positive effects

[165] Ms Nuku[91] advised that AFFCO Feilding plant is a major employer in the region and district, directly employing 380 staff. AFFCO additionally employs many consultants and maintenance contractors and its staff live in the wider community. The plant currently processes around 120,000 head of cattle annually which is a significant service provided to the surrounding primary production sector. That view was mirrored by the verbal evidence of Hamish Waugh, the General Manager Infrastructure at the Manawatu District Council, appearing in support of the Council's submission.

[166] We find that the applicant's wastewater discharge proposal, which is necessary to ensure the ongoing operation AFFCO Feilding plant, will have significant positive effects.

9.2 Part 2

[167] Part 2 of the RMA sets out the purpose and principles of general application in giving effect to the Act. We understand that the RMA has a single purpose, which calls for an overall broad judgement of potentially conflicting considerations, the scale or degree of them, in terms of their relative significance or proportion in promoting the sustainable management of natural and physical resources.[92]

[90] Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited, 27 October 2016, paragraphs 171(i).
[91] Statement of Evidence of Ann Nuku (Plant Manager) on behalf of AFFCO New Zealand Limited, 26 October 2016, paragraphs 4 and 9.
[92] *Green & McCahill Properties v Auckland Regional Council* [1997] NZRMA 519 (HC).

[168] We find that the application will enable people and communities (AFFCO, its employees and its goods and service providers) to provide for their social and economic well-being (section 5(2)). The ongoing use of the existing wastewater treatment infrastructure will promote the sustainable use of that physical infrastructure. The proposed discharge regime, particularly during the summer months, will greatly assist with sustaining the potential of the Oroua River to meet the needs of future generations (section 5(2)(a)). As we have discussed, the proposed discharge regime will adequately safeguard the life-supporting capacity of the Oroua River (section 5(2)(b)). The potential adverse effects of the proposed discharges are either minor, or can otherwise be appropriately mitigated (section 5(2)(c)).

[169] Section 6 of the RMA identifies matters of national importance that we are required to recognise and provide for. We recognise that sections 6(a), 6(d) and 6(e) require our attention.

[170] We acknowledge that the natural character of the Oroua River, in terms of its water quality and amenity value, has been degraded historically by stopbanking, river control works, industry, roading and farming activities. The AFFCO proposal will remedy some of that past degradation by removing the treated wastewater discharges to the Oroua River during the extended summer period.[93] At other times of the year adverse effects on natural character (such as excessive periphyton) will be minor. We are satisfied that section 6(a) matters are adequately provided for.

[171] The AFFCO proposal will have no impact on public access to and along the Oroua River. While the erection and maintenance of warning signs (regarding the existence of the discharge to the river) may deter public use of the river, that is a necessary health and safety precaution (a section 5(2) matter). We are satisfied that section 6(d) matters are adequately provided for.

[172] In terms of section 6(e), we discussed tangata whenua issues in our discussion of the RPS provisions.

[173] Section 7 directs that in achieving the purpose of the RMA we must have particular regard to some eleven listed matters. The applicable matters in this case include sections 7(a), 7(b), 7(c), 7(d) and 7(f).

[174] Regarding section 7(a), we discussed tangata whenua issues in our discussion of the RPS provisions.

[175] We have already noted that the ongoing use of the existing AFFCO wastewater treatment infrastructure is beneficial and we note that it is also efficient (section 7(b)). We previously addressed amenity values (section 7(c)), ecosystem values (section 7(d)) and the quality of the Oroua River receiving environment (section 7(f)) in our assessment of the proposed discharges in sections 5.1.4 to 5.1.9 of this decision report. That assessment was undertaken in the context of the specified values (Schedule B of the One Plan) for this reach of the Oroua River.

[93] Except in specified "emergency" conditions where the treatment and storage ponds are full and soil moisture conditions preclude discharging the treated wastewater to land.

[176] We are satisfied that we have had appropriate and particular regard to the relevant section 7 matters.

[177] Section 8 directs us to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). We have done so to the extent that those principles are consistent with the scheme of the RMA. We note that the Treaty of Waitangi is a partnership between the Crown and Maori, however in our view the applicant has been respectful of the Treaty principles and has sought to reflect these principles in their pre-and post-application consultation.

[178] Our overall broad judgement is that the application is consistent with Part 2 of the Act.

10 Consent Conditions

[179] As part of the AEE the applicant provided a suite of conditions. In her officer's report Ms Manderson recommended a suite of amended conditions that were based on the applicant's AEE version. Mr Edwards then responded to Ms Manderson's recommendations in his evidence.[94] During the hearing the MWRC technical advisors and the applicant's technical experts engaged in discussions in an attempt to narrow the remaining areas of disagreement between them. We were provided with a suite of revised conditions at the end of day two of the hearing. The next day we provided comments on those conditions and asked that the MWRC personnel and the applicant's experts to jointly address those comments. We asked that a final suite of conditions be attached to the applicant's reply submissions, clearly showing areas of disagreement and the alternative wording sought. [95]

[180] Having carefully reviewed the final suite of conditions attached to the reply, we find them to be largely satisfactory. We have commented on our preferred monitoring conditions earlier in this decision report. We are satisfied that the conditions we have settled upon are appropriate in terms of providing certainty that the potential adverse effects of the AFFCO proposal will be appropriately avoided, remedied or mitigated.

[94] Statement of Evidence of Hywel David Edwards (Planning and Conditions) on behalf of AFFCO New Zealand Limited, 27 October 2016, Appendix A.

[95] Subsequent to the appearance of the Water Protection Society (represented by Mr Teo-Sherrell) we received an email from the hearings administrator forwarding to us five documents from Mr Teo-Sherrell comprising annotated copies of the recommended conditions of consents for the five applications. As these documents were not mentioned by Mr Teo-Sherrell when he appeared before us and they were not tabled as evidence at the hearing (whereby we would have had the opportunity to query Mr Teo-Sherrell regarding their content), we have decided to give them little weight. We note however that Mr Teo-Sherrell was invited to by the applicant to discuss his comments with them after the hearing adjourned.
Another submitter, John Bent, expressed concern that we did not direct the applicant to consult with him regarding his views on the final wording of the conditions that would attach to the reply submissions. We advised Mr Bent that we did not consider that it was our role to make such a direction, but that the applicant and the reporting officers were free to consult with him if they so desired.

11 Determination

[181] Pursuant to the powers delegated to us by the Manawatu Wanganui Regional Council under section 34A of the Resource Management Act 1991, we record that having read the applicant's AEE and evidence, the submissions and submitter evidence, Ms Manderson's officer's report and its supporting technical reports, and having considered the various requirements of the RMA, we find that:

a) The actual and potential adverse effects of the AFFCO New Zealand Limited applications are no more than minor or are otherwise able to be appropriately mitigated by the imposition of robust conditions of consent;

b) Granting the applications would result in significant positive effects;

c) The applications are either consistent with the provisions of the relevant statutory instruments or where they are not consistent any outstanding issues can be addressed by robust conditions of consent;

d) The applications are consistent with Part 2 of the RMA and so the purpose of the RMA would be best achieved by granting them.

[182] We therefore **grant** the applications lodged by AFFCO New Zealand Limited for the reasons listed in paragraph [182] above and as further set out in the body of this decision report.

[183] The conditions of consent are set out in Appendix 2. The consents will expire on 1 July 2029.

Signed by the commissioners:

Rob van Voorthuysen, Chairperson

Anthony Olsen

Dr Jim Cooke

Dated: 3 February 2017

Appendix 1 Appearances

Applicant

- David Allen, counsel
- Ann Nuku, AFFCO Feilding Plant Manager
- Hamish Lowe, consultant agricultural scientist
- Peter Hill, consultant scientist
- Dr Olivier Ausseil, consultant water quality scientist
- Hywel Edwards, consultant planner

At the applicant's request we excused Albert van Oostrom[96] from attending the hearing and we put our questions to him in writing. These questions were answered in the Supplementary Evidence of Hamish Lowe.

Submitters

- Nga Kaitiaki o Ngati Kauwhata Inc. represented by Dennis Emery, April Bennett and Jeff Rakatau
- The Water Protection Society Incorporated represented by Chris Teo-Sherrell
- Te Ropu Taiao o Ngati Whakatere represented by Robert Ketu, Gordon Thompson and Adrian Hurunui
- Te Mauri O Rangitane O Manawatu represented by Paul Horton
- Manawatu Estuary Trust, Shannon Progressive Association, and Kelvin and Katherine Lane all represented by Kelvin Lane
- Christina Paton
- John Cyril (Corny) Andrews
- Water and Environmental Care Association Inc. represented by Michael Smith
- John Bent
- Manawatu District Council represented by Hamish Waugh (General Manager – Infrastructure)

MWRC

- Tabitha Manderson, consultant planner
- Logan Brown, MWRC Freshwater and Partnerships Manager
- David Horne, Associate Professor in the Soil and Earth Science Group in the 'Institute of Agriculture and Environment' at Massey University
- Neil Thomas, consultant hydrologist

We excused Jon Bell (MWRC Senior Design Engineer), Stuart Standen (MWRC Senior Consents Monitoring Officer) and Andrew Curtis (consultant air quality specialist and toxicologist) from attending the hearing as having read their reports and memoranda, we had no questions of clarification for them.

[96] Mr van Oostrom prepared a report on the characteristics of the AFFCO wastewater titled" Wastewater Treatment Performance Review, November 2016"

Appendix 2 – Consent conditions